6.
WATER SUPPLY OPPORTUNITIES

Water Supply Opportunities Supporting Information

Water supply opportunities vary among alternatives. Modeling runs of system operations (DWR Simulation Model) provide estimates of the water supply opportunities for each alternative. Relative comparisons of the increase, or decrease, in water supply opportunities will be used to compare the alternatives.

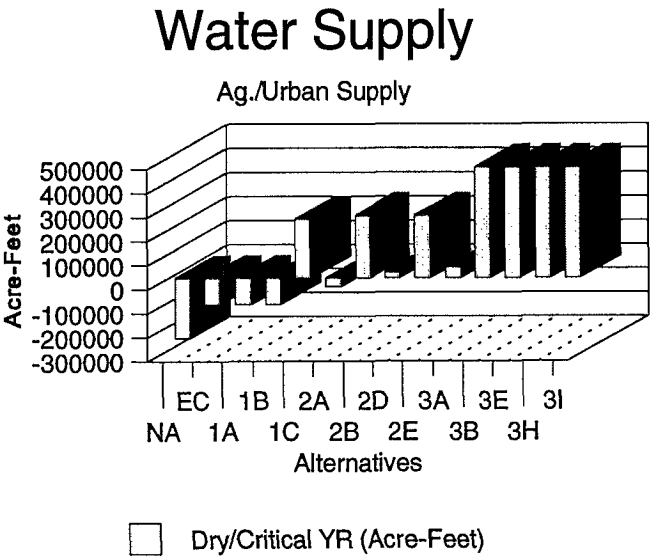
Definition

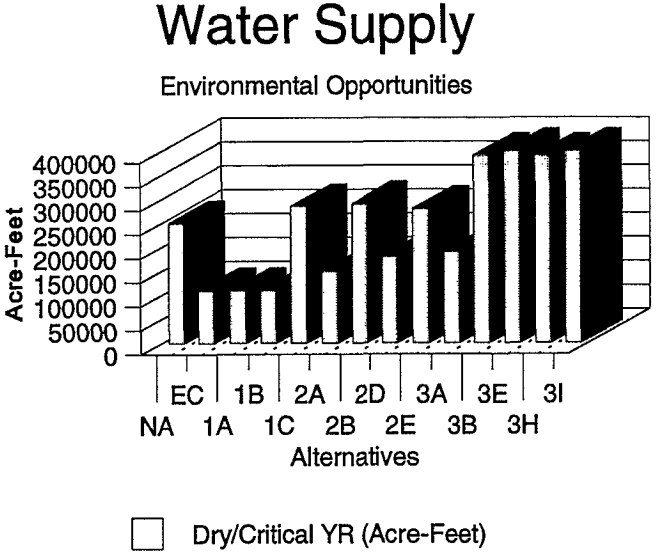
"Water Supply Opportunities" is a measure of the change provided by the alternatives for water supply for the environment and for ag./urban uses.

Summary

The amount of water provided by the Program alternatives depends directly on the size and configuration of the storage and conveyance facilities. The charts at the right provide a summary of the Program water made available for environmental uses and for agricultural/urban uses for a critically dry year.

The charts at the right show preliminary estimates of the amount of Program water supply opportunities for the alternatives. Since higher opportunities are the most desirable, Table 6.1 provides a score of "5" to the greatest water supply opportunities and a score of "0" to the lowest impacts. These estimates are in comparison to DWRSIM run 472 for the no-action alternative (with Program adjustments outlined below).





6. Water Supply Opportunities (new water generated from alternatives)

CALFED environmental water supply benefits (acre-feet);
- avg. year water supply
- critical year water supply

CALFED agricultural/Urban water supply benefits (acre-feet)
- avg. year water supply
- critical year water supply

To Decision Matrix

Assumes 1/3 of developed supply allocated to environmental uses and 2/3 to ag./urban uses.
Water acquired from willing sellers for ecosystem needs is accounted for separately.
No regional breakdown is available at this time.

Table 6.1 Summary

	Envir. Water Benefits				Ag./Urban Water Benefits				$/AF developed	Ag./Urb.	Envir.
Alternative	Crit. Yr. (TAF)	Score	Avg. Yr. (TAF)	Score	Crit. Yr. (TAF)	Score	Avg. Yr. (TAF)	Score	(for reference only)	Score	Score
Exist. Cond.	210-290	3	630-850	5	(210)-(290)	0	(630)-(840)	0	Estimated costs for developed water have not yet been developed.	0	4
No-action	90-130	2	220-300	3	(90)-(130)	1	(220)-(300)	1		1	2
1A	90-130	2	260-350	3	(90)-(120)	1	(150)-(200)	1		1	2
1B	90-130	2	260-350	3	(90)-(120)	1	(150)-(200)	1		1	2
1C	240-330	3	410-550	4	210-280	3	150-210	3		3	3
2A	130-170	2	310-420	4	(30)-(40)	2	(30)-(40)	2		2	3
2B	250-330	3	430-580	4	220-300	3	200-280	3		3	3
2D	150-210	3	340-460	4	20-30	2	20-30	2		2	3
2E	250-330	3	430-580	4	220-300	3	200-280	3		3	3
3A	160-220	3	340-470	4	40-50	2	30-40	2		2	3
3B	330-450	4	470-640	4	390-530	4	290-390	4		4	4
3E	340-460	4	480-640	4	400-540	4	300-400	4		4	4
3H	330-450	4	470-640	4	390-530	4	290-390	4		4	4
3I	340-460	4	480-640	4	400-540	4	300-400	4		4	4

Water supply opportunity relative to run DWRSIM 472 and includes adjustments as estimated on the following pages.
Numbers in parentheses () indicate negative values.
- For reference; - Avg. Yr. no-action water supply approximately 6.2 million acre-feet
  - Critical Yr. no-action water supply approximately 4.3 million acre-feet

Values are on a scale from 0 to 5; with 0 representing the least opportunty and 5 representing the most.

Supporting Information for Table 6.1

Preliminary system modeling of new storage and conveyance facilities has been conducted with DWRSIM, including combinations of 1) isolated Delta conveyance, 2) Sacramento River tributary surface storage, and 3) south of Delta off-aqueduct surface storage. While modeling of complete program alternatives is ongoing, results of this preliminary modeling may be used for initial PEIR/EIS evaluations. While modeling of complete program alternatives is ongoing, results of this preliminary modeling may be used for initial approximations of water supply opportunities. This information will be updated as modeling progresses. Since development of this information is in progress, the following is a sample of how information may ultimately support Table 6.1.

CALFED operation studies 472 through 510 provide an initial evaluation of potential water supply benefits using DWRSIM. The model studies include elements of storage and conveyance facilities associated with Bay-Delta Program alternatives. However, many storage and conveyance facilities and operational parameters are not yet included in the model studies. Post-processing analysis has been used for adjusting DWRSIM results considering several adjustment factors for current institutional and model limitations. Specific adjustments include:

- **CVPIA Delta (b)(2) Actions**
  Critical Years: 110 taf; 73-year average: 260 taf; shifted from total water supply to environmental water supply.

- **Sacramento River Flow Event Target for Fluvial Geomorphology**
  Critical Years: 17 taf; 73-year average; 93 taf; subtracted from total water supply.

- **Groundwater/In Delta/ San Joaquin Storage**
  Critical Years: 20 taf; 73-year average; 90 taf; added to total water supply.

- **15,000 cfs Isolated Conveyance Facility**
  Critical Years: 10 taf; 73-year average: 10 taf; added to total water supply.

- **Joint SWP/CVP Diversion**
  Critical Years; 5 taf; 73-year average: 130 taf; added to total water supply.

Information in Table 6.1 and this supporting information will be updated as more detailed modeling becomes available.